

SWAC C&D Subcommittee Meeting

MassDEP Bureau of Air & Waste

March 30, 2016: 10:00 AM - 12:00 PM

One Winter Street, Boston



Agenda

- **Welcome/Introductions** (MassDEP – 5 min.)
- **Comments on Draft SOW for MassDEP sponsored “2016 C&D Debris Industry Study”** (All – 60 min.)
- **Preview of 2013 and 2014 Annual C&D Facility Report Summary Data to be posted on MassDEP website in April** (MassDEP – 15 min.)
- **Announcements/Open Discussion** (All – 30 min.)
- **Closing/Next Steps** (MassDEP – 5 min.)

COMMENTS ON DRAFT SOW FOR MASSDEP SPONSORED “2016 C&D DEBRIS INDUSTRY STUDY”

Draft SOW for C&D Debris Industry Study

- MassDEP is soliciting comments on the draft Scope-of-Work (SOW) for a C&D Debris Industry Study that it intends to conduct during the latter half of 2016.
- <http://www.mass.gov/eea/docs/dep/public/committee-5/cdsow16.pdf>

Draft SOW for C&D Debris Industry Study

- Tentative Project Schedule (CY2016)
 1. Solicit comments from C&D Subcommittee on Draft SOW (March)
 2. Finalize SOW (April)
 3. Issue RFP for competitive bids (May)
 - a. PRF 61 Management Consultants, Program Coordinators and Planners Services Statewide Contract (www.COMMBUYS.com)
 4. Review Proposals/Select Consultant (June)
 5. Award contract/Authorize Work (July)
 6. Complete final report (October/November)

Draft SOW for C&D Debris Industry Study

MassDEP will re-assess the status of the C&D material management industry by focusing on three main areas of investigation:

1. Characterize the quantity and composition of C&D derived materials and the by-products of C&D processing generated by current construction, renovation and demolition activities in Massachusetts;
2. Assess the capacity of the existing recycling end-market providers; and identify the potential capacity of unrealized recycling end-market opportunities;
3. **Evaluate opportunities to increase recycling** at C&D processors and reduce dependency on diminishing markets (e.g. landfill dependant use applications) for C&D fines and C&D residual byproducts.

(Note: MassDEP is focused on the long-term policy goal of promoting increased recycling of C&D derived materials – 50% by 2020)

Draft SOW for C&D Debris Industry Study

Sequencing of Tasks:

1. Assess quantity and composition of C&D derived materials
 - a. Characterize C&D Derived Wood and other C&D derived materials
 - b. Select two other high priority C&D materials (in addition to wood) to carry through end market capacity analysis
2. Characterize C&D Fines and C&D Residual byproducts
3. Conduct capacity analysis of current and potential future recycling end markets for:
 - a. C&D derived materials
 - b. C&D processing byproduct component materials
4. Evaluate processing advancements:
 - a. Improve value of C&D derived materials and C&D processing byproduct component materials for recycling end-markets.

Draft SOW for C&D Debris Industry Study

TASK 1. Characterize the Quantities and Composition of C&D Derived Materials

Specific tasks will include:

- Research existing data:
 - Quantities/types of C&D derived materials generated;
 - Composition re: suitability for recycling end markets; for example:
 - Wood
 - Clean wood (dimensional lumber, pallets, crates, spools)
 - Manufactured wood (plywood, fiberboard, particleboard)
 - Treated wood (CCA, Creosote, Pentachlorophenol treated wood)
 - Painted wood (lead, oil and water based painted wood)

Draft SOW for C&D Debris Industry Study

TASK 1. Characterize the Quantities and Composition of C&D Derived Materials (Cont'd)

Specific tasks will include:

- Visit select number of C&D processors to validate material quantities and composition
 - 2 processors that typically average >30% recycling
 - 2 processors that typically average <30% recycling, but >20% recycling
 - 2 processors that typically average < 20% recycling
- Provide description of the technologies and operational practices used at each
- Based on prioritized ranking of materials generated, select two additional C&D Derived Materials (in addition to wood) to be included in End-Market Capacity Assessment

Draft SOW for C&D Debris Industry Study

Task 2: Characterize C&D fines and C&D residuals

Specific tasks include:

- Visit representative number C&D processing facilities to collect representative samples of C&D fines and C&D residuals
 - 2 processors that typically average >30% recycling
 - 2 processors that typically average <30% recycling, but >20% recycling
 - 2 processors that typically average < 20% recycling
- Conduct Analysis of material composition and physical characteristics of subject materials.
- Assess opportunities for recycling byproduct component materials as is; and
- Assess whether further processing to recover a larger fraction of the byproduct component materials could result in greater opportunities within the recycling end markets.

Draft SOW for C&D Debris Industry Study

Task 2: Characterize C&D fines and C&D residuals

Analyze composition and physical characteristics

- Gross Assessment of component materials by weight
 - Wood, Metal, ABC, Gypsum, Asphalt Shingles, Glass, Paper, Plastic, etc.
- Physical characteristics
 - Particle size distribution
 - Volatile solids content (organic content)

Draft SOW for C&D Debris Industry Study

Task 3: Assess Current and Future Capacity of Recycling End Markets

Specific tasks will include:

- Identify existing markets within and outside of MA that handle C&D derived materials;
- Assess the capacity of existing end market providers for recycling C&D derived materials;
- Assess the projected long-term capacity of existing and future markets; and
- Assess the pricing structure and stability of existing and future markets.

Draft SOW for C&D Debris Industry Study

Task 4: C&D Processing Advancements

Specific tasks will include:

- Research markets currently being used in other geographic areas, which are not currently being used by MA facilities;
- Research markets currently in the R&D phase;
- Research new processing and sorting technologies
 - Clean or reclaim more of the targeted C&D derived materials that are currently non-recyclable, and
 - Funding required to help the deploy new technologies

Draft SOW for C&D Debris Industry Study

Task 5: Barriers

- If during the course of fulfilling Task 1 through 4, the consultant identifies barriers to increasing recycling of C&D material, the consultant will provide a description of those barriers.

Specific tasks include:

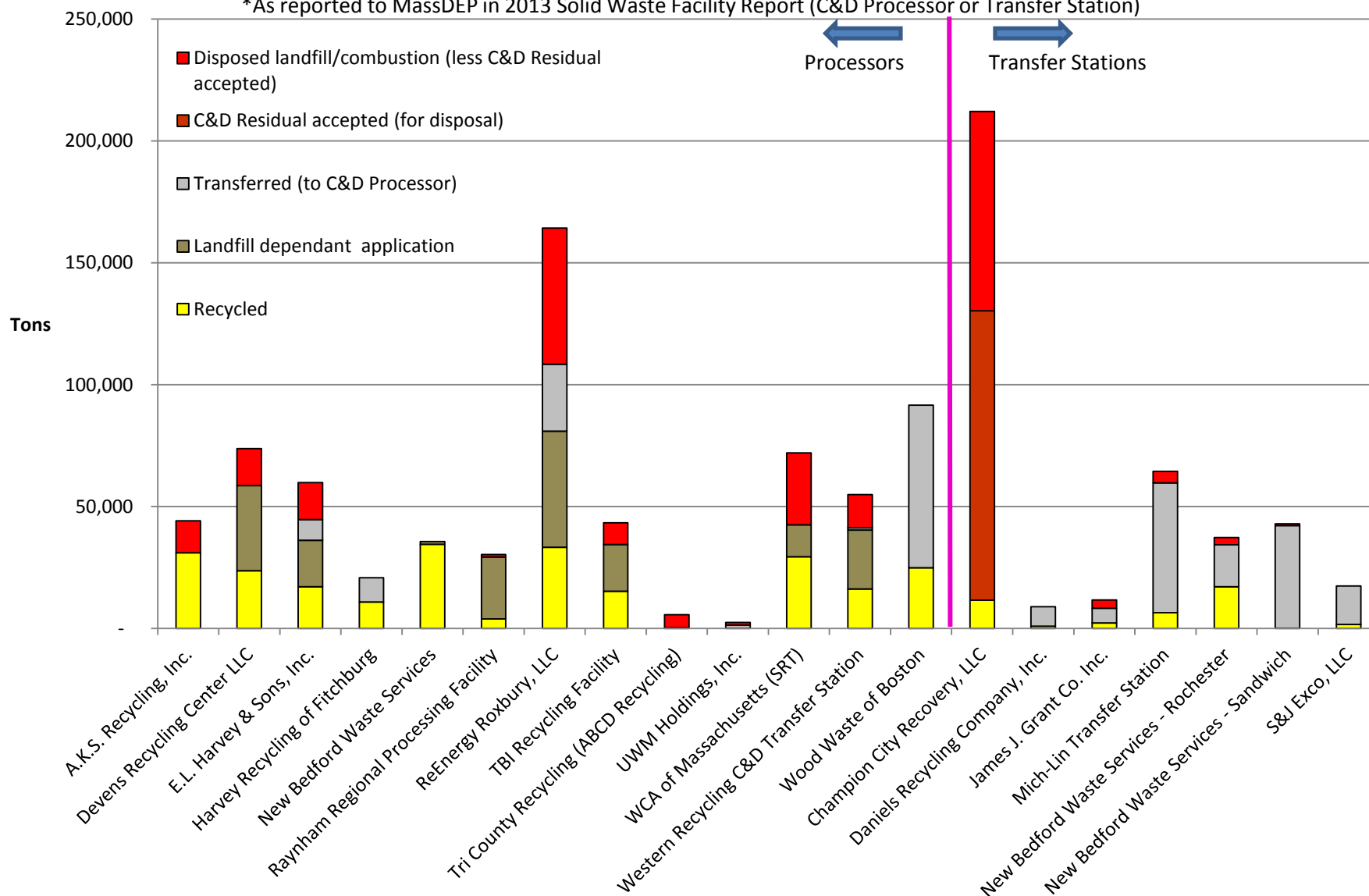
- Identify existing building practices, collection & processing infrastructure, price pressures, etc. that impede or promote the ability (or inability) to develop the markets.

**2013 AND 2014
ANNUAL C&D FACILITY REPORT
SUMMARY DATA**

Massachusetts C&D Handling Facilities

Tons of C&D Accepted and Handled by Facility in 2013*

*As reported to MassDEP in 2013 Solid Waste Facility Report (C&D Processor or Transfer Station)

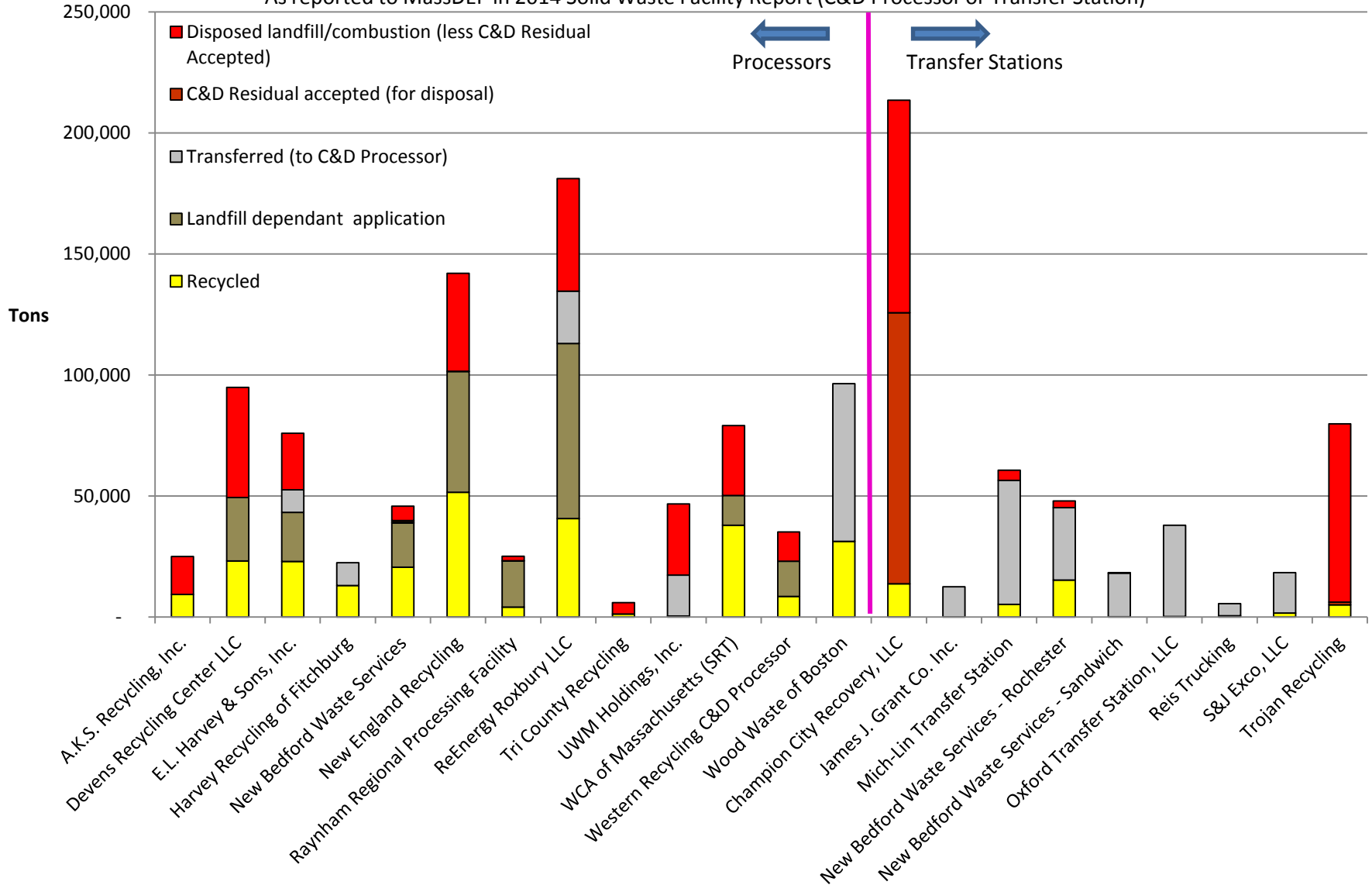


2013 Annual C&D Report Data Summary																	
Facility	Note: All data reported in tons unless otherwise indicated	Total C&D waste accepted	Transferred (to C&D Processor)	Total % of C&D waste transferred to another C&D processor	Handled by the facility. (less Transferred)	Recycled	Handled Recycling Rate (%) = tons of C&D materials recycled divided by tons handled (not including transferred materials).	Wood reused (fuel, particleboard, mulch)	Total % of wood reused (fuel, particleboard, mulch)	Landfill dependant application	Total % of C&D fines & residuals used in landfill dependant applications	Disposed landfill/combustion	C&D % of disposed	Overall recycling rate (%) = tons recycled divided by total C&D waste accepted	C&D Residual accepted (for disposal)	Disposed landfill/combustion (less C&D Residual accepted)	% C&D residual accepted of total waste accepted
A.K.S. Recycling, Inc.	Fitchburg	54,404	0	0%	54,404	31,030	57%	7,916	15%	0	0%	13,148	24%	57%	0	13148	0%
Devens Recycling Center LLC	Ayer	87,120	0	0%	87,120	23,589	27%	15,619	18%	35,030	40%	15,133	17%	27%	0	15133	0%
E.L. Harvey & Sons, Inc.	Westborough	59,812	8,488	14%	51,324	17,047	33%	1,365	3%	19,118	37%	15,159	30%	29%	0	15159	0%
Harvey Recycling of Fitchburg	Fitchburg	28,543	10,016	35%	18,527	10,784	58%	9,916	54%	0	0%	0	0%	38%	0	0	0%
New Bedford Waste Services	New Bedford	49,833	0	0%	49,833	34,504	69%	9,168	18%	1,093	2%	0	0%	69%	0	0	0%
Raynham Regional Processing Facility	Raynham	29,876	0	0%	29,876	3,880	13%	2,123	7%	25,387	83%	1,040	3%	13%	0	1040	0%
ReEnergy Roxbury, LLC	Roxbury/Boston	154,732	27,430	18%	127,302	33,279	26%	7,292	6%	47,628	37%	55,926	44%	22%	0	55926	0%
TBI Recycling Facility	North Andover	43,339	0	0%	43,339	15,268	35%	9,506	22%	19,086	44%	8,985	21%	35%	0	8985	0%
Tot County Recycling (ABCD Recycling)	Ware	5,348	0	0%	5,348	220	4%	0	0%	0	0%	5,391	101%	4%	0	5391	0%
UWM Holdings, Inc.	Holyoke	2,556	1,231	48%	1,325	79	6%	0	0%	0	0%	1,088	82%	3%		1088	0%

Massachusetts C&D Handling Facilities

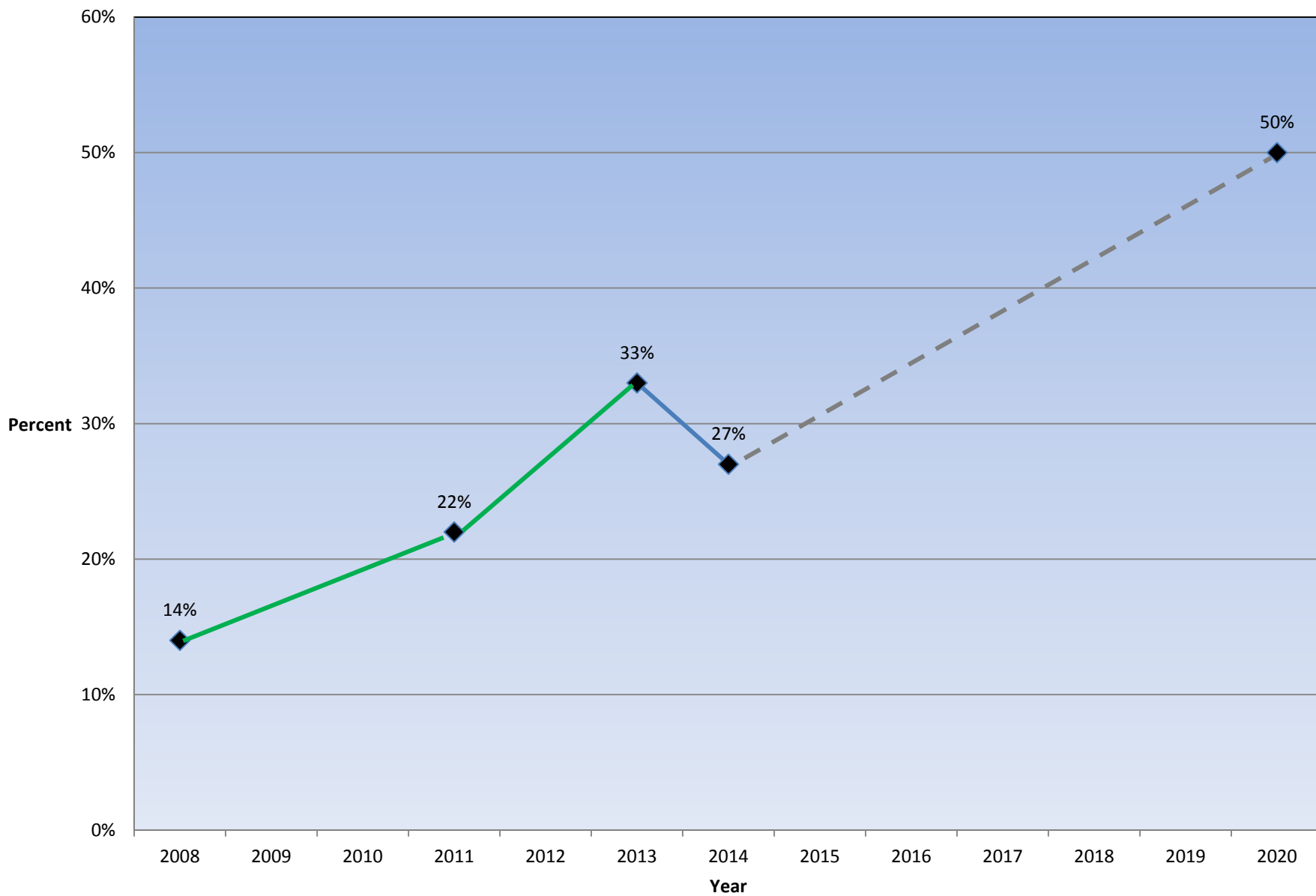
Tons of C&D Accepted and Handled by Facility in 2014*

*As reported to MassDEP in 2014 Solid Waste Facility Report (C&D Processor or Transfer Station)



2014 Annual C&D Report Data Summary																
Facility	Note: All data reported in tons unless otherwise indicated	Total C&D waste accepted	Transferred (to C&D Processor)	Total % of C&D waste transferred to another C&D processor	Handled by the facility. (less Transferred)	Recycled	Handled Recycling Rate (%) = tons of C&D materials recycled divided by tons handled (not including transferred materials).	Wood reused (fuel, particleboard, mulch)	Total % of wood reused (fuel, particleboard, mulch)	Landfill dependant application	Total % of C&D fines & residuals used in landfill dependant applications	Disposed landfill/combustion	C&D % of disposed	Overall recycling rate (%) = tons recycled divided by total C&D waste accepted	C&D Residual accepted (for disposal)	Disposed landfill/combustion (less C&D Residual Accepted)
A.K.S. Recycling, Inc.	Fitchburg	41,140	0	0%	41,140	9,296	23%	0	0%	0	0%	15,657	38%	23%		15,657
Devens Recycling Center LLC	Ayer	100,777	0	0%	100,777	23,081	23%	15,956	16%	26,232	26%	45,559	45%	23%	0	45,559
E.L. Harvey & Sons, Inc.	Westborough	75,892	9,325	12%	66,567	22,903	34%	859	1%	20,345	31%	23,319	35%	30%	0	23,319
Harvey Recycling of Fitchburg	Fitchburg	36,720	9,391	26%	27,329	12,993	48%	10,475	38%	0	0%	0	0%	35%	0	-
New Bedford Waste Services	New Bedford	85,369	312	0%	85,057	20,513	24%	17,801	21%	18,308	22%	6,647	8%	24%	680	5,967
New England Recycling	Taunton	141,528	83	0%	141,445	51,534	36%	35,732	25%	49,889	35%	40,500	29%	36%	0	40,500
Raynham Regional Processing Facility	Raynham	24,506	48	0%	24,458	4,075	17%	2,518	10%	19,068	78%	1,837	8%	17%	0	1,837
ReEnergy Roxbury LLC	Roxbury/Boston	150,398	21,652	14%	128,746	40,657	32%	10,121	8%	72,340	56%	46,487	36%	27%	0	46,487
Tri County Recycling	Ware	5,739	0	0%	5,739	1,158	20%	0	0%	0	0%	4,702	82%	20%	0	4,702
UWM Holdings, Inc.	Holyoke	47,260	16,887	36%	30,373	365	1%	0	0%	0	0%	29,415	97%	1%	0	29,415

C&D Recycling Rate



ANNOUNCEMENTS/OPEN DISCUSSION

Announcements

- Annual C&D Facility Report for CY2015
(<http://www.mass.gov/eea/agencies/massdep/recycle/approvals/construction-and-demolition-facility-form.html>)
 - Past Due: February 15, 2016
 - Contact me if you haven't yet requested extension

Announcements

- EPA Office of Resource Conservation and Recovery announces new C&D WebPages:
 - [Sustainable Management of Construction and Demolition Materials](https://www.epa.gov/smm/sustainable-management-construction-and-demolition-materials) (<https://www.epa.gov/smm/sustainable-management-construction-and-demolition-materials>) that employs an accordion format to cover the basic C&D topics, including info on C&D material generation in the US; and
 - [Best Practices for Reducing, Reusing, and Recycling Construction and Demolition \(C&D\) Materials](https://www.epa.gov/smm/best-practices-reducing-reusing-and-recycling-construction-and-demolition-cd-materials) (<https://www.epa.gov/smm/best-practices-reducing-reusing-and-recycling-construction-and-demolition-cd-materials>) that adds other practical information to the topics in the Sustainable Management of Construction and Demolition Materials page.

Announcements



EBC Solid Waste Management Committee

Construction & Demolition Subcommittee Meeting

Friday, April 8, 2016
E.L. Harvey & Sons
68 Hopkinton Rd, Westborough MA



When

8:00AM - 10:00AM
April 8, 2016

Where

E.L. Harvey & Sons
68 Hopkinton Rd
Westborough, MA

Please join EBC for a Construction & Demolition Subcommittee meeting to discuss issues around the management of concrete from demolition projects, including a generic BUD for concrete and DECAM's generic BUD. This meeting is a follow up to the C & D meeting held on February 25, 2016 with Michael Elliott from Mass DEP.

Discussion Leader: Dan Costello, President of Costello Dismantling

Other issues to be discussed in the future include:

- Fines and residuals management - BMPs
- Wood waste and the Massachusetts moratorium on new mass burn facilities
- Mass DEP markets study

Please register in advance.

Contact: Tony Wespiser, Chair, EBC C & D Subcommittee and Vice Chair, EBC Solid Waste Committee

[Register now for this meeting](#)

[Find out more about this committee](#)

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CLOSING/NEXT STEPS

Closing/Next Steps

- Next MassDEP C&D Subcommittee Meeting
Ca. June 2016
 - Status of RFP for 2016 C&D Debris Industry Study
 - Market implications of achieving LEED C&D waste recycling credits (Roundtable discussion)
 - Preliminary summary of CY2015 annual C&D facility report data

For More Information:

Point of Contact:

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